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EXAMINER

LU, ZHIYU

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

SUPPLEMENTAL DETAILED ACTION

Response to Request For Complete Final Office Action

1. Applicant's Request For Complete Final Office Action filed 04/16/2008 have been fully considered.

Applicants indicated that the office action provides no clue as to the reason for the failure to acknowledge this application's 03/17/1999 priority date. Nevertheless, the application's foreign priority data has been considered. Yet the application's foreign priority date does not show as being prior to the prior art references used in claim rejections.

Applicants argued that documents submitted to the Rule 131 Declaration do not have to be in English because there is no MPEP section or other legal authority cited for the refusal to consider the evidence. Applicants argued that the last Office Action fail to respond on the merits of the Rule 131 Declaration and the documents attached to it as evidence.

However, the Examiner does not agree. By applicants' interpretation, the Examiner can issue non-English Office Actions to applicants because there is no MPEP section or other legal authority cited for the position of having Office Actions to be in English. Moreover, the Examiner did not refuse the filed documents as evidences. In case applicants did not notice the paragraph from last Office Action, a statement of "The 131 Affidavit filed on 12/06/2007 under 37 CFR 1.131 **has been considered** but is ineffective to overcome..." It implies the filed 37 CFR 1.131 affidavit or declaration and documents have been considered. The documents applicants provided have been considered as dated evidences that contain a similar drawing but no relevant disclosure to support conception or reduction to practice of instant application.

Response to Amendment

2. The 131 Affidavit filed on 12/06/2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the HBCI HOMEBANKING COMPUTER INTERFACE – Interface Specification Version 2.1 reference.

The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the HBCI HOMEBANKING COMPUTER INTERFACE – Interface Specification Version 2.1 reference to either a constructive reduction to practice or an actual reduction to practice. Besides a date and a similar drawing are shown in applicants' filed documents, by reading interpretation the evidences contain no evidences of conception and/or reduction to practice that support applicants' instant invention prior to the date of the HBCI HOMEBANKING COMPUTER INTERFACE – Interface Specification Version 2.1 reference.

Priority

3. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a certified English translation of the foreign application must be submitted in reply to this action. 37 CFR 41.154(b) and 41.202(e). Failure to provide a certified translation may result in no benefit being accorded for the non-English application.

Reply Period is Reset

5. Applicants filed *Request For Complete Final Office Action* on 04/16/2008, after mailing of the Final Office Action on 03/06/2008. The new 2-month period for reply is set, see MPEP 710.06.

Response to Arguments

6. Applicant's arguments filed 12/06/2007 have been fully considered but they are not persuasive.

Regarding rejections on claims 1 and 37, applicants argued that the Interview Reference does not express a "design preference" because it does not mention replacing the Telepay system of Hultgren with an HBCI gateway and the HBCI gives the customer more banking services than just making payment.

However, the Examiner does not agree. Hultgren teaches a financial servicing system that enables a customer to utilize banking service over the data network via a GSM mobile telephone with a chip card (Fig. 1B). The published HBCI specification provides a European online banking standard for banking service over a data network via remote equipment with a chip card. So, one of ordinary skill in the art would recognize that Hultgren discloses the same backbone that fits HBCI standard in providing electronic banking service to customer via mobile telephone. The Interview Reference shows that Europe has different banking standards including HBCI, which are capable of being implemented with a GSM mobile network so that customers can utilize electronic banking services over the data network with a mobile telephone.

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In other words, different banks use different electronic banking standards with GSM banking. Therefore, it would have been obvious to one of ordinary skill in the art to replace Telepay of Hultgren with HBCI in view of the Interview Reference for electronic banking compatibility as design preference. In term of banking services, the claims do not limit what kind of HBCI banking services a customer has to utilize. Furthermore, having additional electronic banking services would have been another obvious reason for one of ordinary skill in the art to replace Telepay of Hultgren with HBCI in view of having HBCI for GSM banking taught by the Interview Reference.

Then, applicants argued that the Interview Reference says nothing about using an HBCI gateway such as that of the claimed invention though the Interview Reference suggests implement HBCI through an Internet connection over a GSM cellular network.

A gateway, in computer network technology, is a node that services as an entrance to another network, and vice-versa. Gateways are known to be used to transfer data between private networks and the Internet. So, though the Interview Reference does not explain how to implement HBCI over Internet, one of ordinary skill in the art would know that a HBCI gateway is required since a bank's HBCI network is a private network. Hultgren also shows that a Telepay gateway (TSN) is applied because it is required to enable communication between the bank and the data network (N) that uses different communications protocols (e.g. X.25, X.21, leased line, or Internet TCP/IP).

Again, applicants argued that there is no suggestion of the claimed subject matter which requires an HBCI gateway and splitting of the customer end HBCI system into two components, the SIM card of the mobile station and an HBCI gateway.

As explained before and as shown in Hultgren, a gateway is necessary to enable communication between the bank and the Internet that uses different communications protocols; and the SIM card is required for identification on customer end. One of ordinary skill in the art would know that implementing HBCI with GSM banking taught by the Interview Reference would require the same in having an HBCI gateway and a SIM card for protocol compatibility and security.

Thus, the rejections are proper and maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 38 is rejected under 35 U.S.C. 102(e) as being anticipated by Dennis (US Patent#7167711).

Regarding claim 38, Dennis anticipates a method for using bank services via mobile radiotelephone in which data is transmitted between a bank server and a mobile station, comprising the steps of:

inserting a communications gateway (18 of Fig. 1) into the transmission path between the bank server (31 of Fig. 3) and the mobile station (13 of Fig. 1), which carries out a

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transformation between the transmission method used at the bank end and a wireless transmission method used at the radiotelephone end (column 3 line 33 to column 4 line 23, column 5 lines 51-55; between wireless and wired, between different networks, between different protocols, or between voice and data);

transmitting data between the communications gateway and the mobile station according to the wireless transmission method used at the radio telephone end (16, 19, & 102 of Fig. 1); and

transmitting data between the communications gateway and the bank server using the transmission method used at the bank end (301 of Fig. 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 20-28, 30-31, 34 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hultgren (US Patent#6868391) in view of “HBCI HOMEBANKING COMPUTER INTERFACE – Interface Specification – Version 2.1” (hereafter, HBCI) and “At the Coal-face Between Financial Industries and Politics” (hereafter, Interview w/ CG). Regarding claim 1, Hultgren teaches a method for using standardized bank services via mobile radiotelephone within a GSM mobile system with Telepay banking standard, comprising the

steps of transmitting between a bank server and a mobile station builds on a transmission method:

inserting an Telepay gateway (30 of Fig. 1A) into the Telepay transmission path between the bank server (80 of Fig. 1A) and the mobile station (60 of Fig. 1A), which carries out a transformation between Telepay transmission method used at the bank end and a transmission method used at the radiotelephone end (column 3 line 39 to column 4 line 47); and

splitting of the customer-end system into two components, a SIM card of the mobile station and the Telepay gateway (Fig. 1A, column 12 line 59 to column 13 line 21).

Hultgren differs from the present invention is that Hultgren used the Telepay gateway between the bank and the GSM mobile network instead of a HBCI gateway.

HBCI is a well known standardized bank-independent protocol for online banking, developed and in use by German banks, which provides support for multibanking, platform-independent, and DES- and RSA-encryption and –signatures with chip card (HBCI, Chapters I & VIII.8, especially VIII.8.4)

Further, Interview w/ CG teaches that with GSM network anyone could design using one of OFX, Integrion Gold, and HBCI as design preference for adapting European Internet banking standard in international network banking implementation (pages 1-11, especially 21st-22nd of Q&G). Thus, one of ordinary skill in the art can implement HBCI gateway between the GSM network and the banks (as shown in Interview w/ CG). The implemented network can be used in GSM mobile network with the European banks. The implemented network will also function necessary step such as splitting the customer-end system into GSM and HBCI. In US, Telepay

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banking standard can be implemented with a GSM mobile network, which is shown in the Hultgren reference.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make use of HBCI gateway instead of Telepay gateway of Hultgren as design preference as evidenced by Interview w/ CG, in order to perform Internet banking with European banks over GSM network.

Regarding claim 37, Hultgren teaches a method for using standardized bank services via mobile radiotelephone, comprising the steps of

transmitting data between a bank server (80 of Fig. 1A) and a mobile station (60 of Fig. 1A) builds on a Telepay transmission method (Fig. 1A);

inserting an Telepay gateway (30 of Fig. 1A) into the transmission path between the bank server and the mobile station, which carries out a transformation between the Telepay transmission method used at the bank end and a transmission method used at the radiotelephone end (column 3 line 39 to column 4 line 47);

splitting the customer-end Telepay system into two components, a SIM card of the mobile station and the Telepay gateway (Fig. 1A, column 12 line 59 to column 13 line 21);

forming two transmission routes, the first between a SIM card and the Telepay gateway and the second between the Telepay gateway and a bank server (Fig. 1A, column 12 line 59 to column 13 line 21); and

unpacking an Telepay protocol by the Telepay gateway and converting its protocol sequence such that compatibility with a GSM SIM card and a GSM network is obtained so that an exchange of the converted protocol with the GSM SIM card is possible (inherent).

Hultgren differs from the present invention is that Hultgren used the Telepay gateway between the bank and GSM mobile network instead of a HBCI gateway.

HBCI is a well known standardized bank-independent protocol for online banking, developed and in use by German banks, which provides support for multibanking, platform-independent, and DES- and RSA-encryption and –signatures with chip card (HBCI, Chapters I & VIII.8, especially VIII.8.4)

Further, Interview w/ CG teaches that with GSM network anyone could design using one of OFX, Integrion Gold, and HBCI as design preference for adapting European Internet banking standard in international network banking implementation (pages 1-11, especially 21st-22nd of Q&G). Thus, one of ordinary skill in the art can implement HBCI gateway between the GSM network and the banks (as shown in Interview w/ CG). The implemented network can be used in GSM mobile network with the European banks. The implemented network will also function necessary step such as splitting the customer-end system into GSM and HBCI. In US, Telepay banking standard can be implemented with a GSM mobile network, which is shown in the Hultgren reference.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make use of HBCI gateway instead of Telepay gateway of Hultgren as design preference as evidenced by Interview w/ CG, in order to perform Internet banking with European banks over GSM network.

Regarding claim 20, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1.

Hultgren teaches wherein two transmission routes are formed, first between a SIM card and the HBCI gateway and second between the HBCI gateway and a bank server (Fig. 1A of Hultgren).

Regarding claim 21, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1.

Hultgren, HBCI, and Interview w/ CG teach the method of utilizing HBCI banking over GSM network, which would have been obvious to one of ordinary skill in the art at the time the invention was made to recognize that an HBCI protocol is unpacked by the HBCI gateway and its protocol sequence is converted such that compatibility with a GSM SIM card and a GSM network is obtained in order for an exchange of the converted protocol with the GSM SIM card is to be possible.

Regarding claim 22, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1.

Hultgren teaches a carrier service for the information exchange to be short message service (column 13 lines 22-32).

Regarding claim 23, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 20.

Hultgren teaches on both routes a cryptographic security is realized (column 6 lines 38-43, column 12 lines 59-65).

Regarding claim 24, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1.

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Hultgren, HBCI, and Interview w/ CG teach wherein between the bank server and the HBCI gateway a security protocol defined by is applied HBCI (III.1.3 of HBCI) and between the HBCI gateway and a SIM card a second security protocol is employed (column 12 line 59 to column 13 line 63 of Hultgren).

Regarding claim 25, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 24.

Hultgren, HBCI, and Interview w/ CG teach wherein the second security protocol corresponds to a protocol reduced in terms of data quality where the transmission only deals with a single customer, but equivalent to HBCI in terms of security technology (III.1.3), where encryption algorithm to be used is by customer's preference and supported by the bank to fit for security procedure and compression procedure of HBCI.

Regarding claim 26, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 25.

Hultgren, HBCI, and Interview w/ CG teach a cryptographic key (Ksms) (signature key of HBCI) specific to each subscriber is securely generated and stored in a SIM card (Chip card of Fig. 1 of HBCI; 62 of Fig. 1A of Hultgren) for use in the second security protocol after regular SIM card personalization (I, VI.3.1.1 Key types of HBCI).

Regarding claim 27, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1.

Hultgren, HBCI, and Interview w/ CG teach wherein the generation of the key (Ksms) specific to the subscriber is generated in the SIM card by entering an initialization PIN on the mobile

telephone (VI.3 of HBCI), where using two or more keys to generate a specific key is also well known in the art of cryptography.

Regarding claim 28, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1. HBCI teaches wherein a subscriber is informed per PIN letter by the bank of a PIN for generating the key (Ksms) (VI.3.1.3.2 Initial key distribution, in writing from the bank).

Regarding claim 30, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1. HBCI teaches wherein before subscription to a service a subscriber receives the data of his bank including an initialization PIN (User ID of III.1.1, VI.3.1.3.2 Initial key distribution).

Regarding claim 31, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 30. HBCI teaches a cryptographic method of generating the key through triple DES using country code (local PIN), bank code (routing number), user ID (account number), key type, key number, and version number (VI.3.1.1, II.5.3.2), which means during the initialization of an application, i.e. during subscription, with the aid of the KIV from initialization PIN, the key Ksms is generated through triple DES using the local PIN, the bank routing number and an account number.

Regarding claim 34, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1.

Hultgren, HBCI, and Interview w/ CG teach wherein the authentication of the two involved sites, mobile radiotelephone subscriber and HBCI gateway, takes place by knowledge of the initialization PIN exchanged in writing (VI.3.1.3.2 of HBCI).

Regarding claim 36, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1. Hultgren teaches wherein an additional authentication of a subscriber takes place via an identification of his/her mobile connection to carry out an evaluation of a calling line identification (CLI) (column 13 lines 33-49).

9. Claims 29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hultgren (US Patent#6868391) in view of “HBCI HOMEBANKING COMPUTER INTERFACE – Interface Specification – Version 2.1” (hereafter, HBCI), “At the Coal-face Between Financial Industries and Politics” (hereafter, Interview w/ CG), and Atalla (US Patent#4288659).

Regarding claim 29, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1. But, Hultgren, HBCI, and Interview w/ CG do not expressly disclose during a card personalization by the mobile telephone network operator together with the bank application, an initialization key KIV, derived from a master key and a SIM card-individual number, for generating a Ksms specific to the subscriber is applied onto a plurality of SIM cards. Atalla teaches generating an initialization key based on a secret code (master key) known by both authorized individual and the bank and an identification of the terminal for generating the

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session key specific to the terminal user (column 1 line 45 to column 2 line 27), where applying the key generating method is obvious to one of ordinary skill in the art to apply on other cards as well.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate generating initialization key from a master key and a hardware individual number taught by Atalla into the method of Hultgren, HBCI, and Interview w/ CG, in order to provide both user and hardware authentication in initialization.

Regarding claim 33, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1.

But, Hultgren, HBCI, and Interview w/ CG do not expressly disclose the generation of an initialization PIN takes place at the HBCI gateway and this is transferred to the bank server.

However, it is known that the gateway is a mid-node for authentication and conversion for user data before communicating with the bank. So, the gateway would be the one who masters security with the user and the bank, which would have been obvious to one of ordinary skill in the art to recognize that having the gateway to generate initialization PIN is secure and convenient. Then initialized PIN can be transferred to the bank so that the bank can inform user the initialization key since the bank is the one who authorize the service.

Atalla teaches the generation of the initialization PIN takes place at the terminal (mid-node between user and bank) and data terminal must be initialized in the first operating cycle (column 1 line 45 to column 2 line 27, column 2 lines 64-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate generating initialization key in mid-node taught by Atalla into the

method of Hultgren, HBCI, and Interview w/ CG, in order to provide secured user initialization and authentication in the HBCI gateway.

10. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hultgren (US Patent#6868391) in view of “HBCI HOMEBANKING COMPUTER INTERFACE – Interface Specification – Version 2.1” (hereafter, HBCI), “At the Coal-face Between Financial Industries and Politics” (hereafter, Interview w/ CG), and Fujioka (JP10-242957).

Regarding claim 32, Hultgren, HBCI, Interview w/ CG, and HBCI Specification v2.1 teach the limitation of claim 27.

But, Hultgren, HBCI, Interview w/ CG, and HBCI Specification v2.1 do not expressly disclose wherein in the generation of the Ksms in the HBCI gateway an initialization PIN is transferred to a gateway operator.

Fujioka teaches transferring an initial key to server for generating another key (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate transferring initialization PIN to server for generating a key taught by Fujioka into the modified method of Hultgren, HBCI, Interview w/ CG, and HBCI Specification v2.1, in order to authenticate key generation for corresponding client.

11. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hultgren (US Patent#6868391) in view of “HBCI HOMEBANKING COMPUTER INTERFACE – Interface

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Specification – Version 2.1” (hereafter, HBCI), “At the Coal-face Between Financial Industries and Politics” (hereafter, Interview w/ CG), and Elgamal et al. (US Patent#5657390).

Regarding claim 35, Hultgren, HBCI, and Interview w/ CG teach the limitation of claim 1.

But, Hultgren, HBCI, and Interview w/ CG do not expressly disclose between mobile radiotelephone network operator and HBCI gateway operator a master key is exchanged.

Elgamal et al. teach between mobile radiotelephone network operator and HBCI gateway operator a master key is exchanged (column 7 lines 41-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate exchanging master key taught by Elgamal et al. into the method of Hultgren, HBCI, and Interview w/ CG, in order for both client and server to produce session keys for encrypt/decrypt data during communication.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. Applicants filed *Request For Complete Final Office Action* on 04/16/2008, after mailing of the Final Office Action on 03/06/2008. The new 2-month period for reply is set, see MPEP 710.06.

14.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhiyu Lu whose telephone number is (571) 272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zhiyu Lu/
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Zhiyu Lu
May 19, 2008